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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,094	09/17/2002	Craig A. Jackson	014191.01	6732

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EXAMINER

BECK, DAVID THOMAS

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/065,094

Applicant(s)

JACKSON ET AL.

Examiner

David T. Beck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-10 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-10 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/1/02</u>   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3, 5, 6, 8, 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Studholme (6,334,877) in view of Sferrazza et al (5,535,945).

With regard to claim 1, Studholme teaches forming a polymer mixture into a filament with good colorability (column 6, lines 30-34) by adding a sulfonated polyester concentrate to a fiber forming polyamide composition (column 3, lines 35-40), but does not teach that the nylon (column 4, lines 7-9) contains recycled material. Sferrazza et al teaches blending virgin polymer with recycle polymer (column 9, lines 45-49). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a mix of virgin and recycled nylon as taught by Sferrazza et al in the process taught by Studholme. The motivation to do so would have been to reduce post consumer carpeting waste (Studholme, column 1, lines 25-30). It is irrelevant that Studholme also teaches adding polyester to the mixture because claim 1 uses the word "comprising" which is open ended and does not exclude additional steps or materials.

With regard to claim 3, Studholme teaches that colorants can be added to the mixture when making the filament (column 5, lines 64-66).

With regard to claim 5, Studholme teaches that the polymer can be nylon 6 or nylon 6,6 (column 4, lines 7-9).

With regard to claim 6, Studholme teaches mixing the nylon to have a range of sulfur from 1,000 to 3,000 ppm sulfur (column 5, lines 29-31). "A prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness." In re Peterson, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1382-83 (Fed. Cir. 2003). The range taught by Studholme makes obvious the disclosure of applicant's claim 6, which claims a sulfur range of 1,000 to 2,600 ppm.

With regard to claim 8, Studholme teaches mixing the nylon to have a range of amide groups of less than 35 meq/gm (column 5, lines 48-51). "In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists." In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) The range taught by Studholme makes obvious the disclosure of applicant's claim 8, which teaches an amide range of 33 to 71 meq/gm.

With regard to claim 10, Studholme teaches adding pigment into the mixture when making the filament (column 5, lines 64-66).

With regard to claim 14, Studholme teaches forming a polymer mixture into a filament with good colorability (column 6, lines 30-34) by adding a sulfonated polyester concentrate to a fiber forming polyamide composition (column 3, lines 35-40), but does not teach that the nylon (column 4, lines 7-9) contains recycled material. Sferrazza et al

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teaches blending virgin polymer with recycle polymer (column 9, lines 45-49). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a mix of virgin and recycled nylon as taught by Sferrazza et al in the process taught by Studholme. The motivation to do so would have been to reduce post consumer carpeting waste (Studholme, column 1, lines 25-30). It is irrelevant that Studholme also teaches adding polyester to the mixture because claim 1 uses the word "comprising" which is open ended and does not exclude additional steps or materials. Furthermore, Studholme teaches mixing the nylon to have a range of sulfur from 1,000 to 3,000 ppm sulfur (column 5, lines 29-31). "A prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a prima facie case of obviousness." In re Peterson, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1382-83 (Fed. Cir. 2003). The range taught by Studholme makes obvious the disclosure of applicant's claim 14, which claims a sulfur range of 1,000 to 2,600 ppm. Studholme teaches mixing the nylon to have a range of amide groups of less than 35 meq/gm (column 5, lines 48-51). "In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists." In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) The range taught by Studholme makes obvious the disclosure of applicant's claim 14, which teaches an amide range of 33 to 71 meq/gm.

7. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Studholme (6,334,877) in view of Sferrazza et al (5,535,945) and Kay et al (5,160,347).

Studholme in view of Sferrazza teaches the claims of applicant's claim 6 as discussed above. However, with regard to claim 7, Sferrazza in view of Studholme does not explicitly teach dyeing the fiber with cationic dye.

Kay et al teaches dyeing nylon fibers with cationic dye (column 3, lines 25-37). As motivation to combine the inventions, Kay et al teaches that the nylon fibers have an affinity or receptivity for either an acid or a cationic dye depending on the dye receptivity type of the nylon fiber (column 2, lines 34-38). Therefore, it would have been prima facie obvious at the time the invention was made to combine the fibers produced by the method of Sferrazza in view of Studholme with the dying method of Kay et al.

Sferrazza in view of Studholme teach the claims of applicant's claim 8 as discussed above. However, with regard to claim 9, Sferrazza in view of Studholme does not explicitly teach dyeing the fiber with acid dye.

Kay et al teaches dyeing nylon fibers with acid dye (column 3, lines 25-37). As motivation to combine the inventions, Kay et al teaches that the nylon fibers have an affinity or receptivity for either an acid or a cationic dye depending on the dye receptivity type of the nylon fiber (column 2, lines 34-38). Therefore, it would have been prima facie obvious at the time the invention was made to combine the fibers produced by the method of Sferrazza in view of Studholme with the dying method of Kay et al.

### ***Response to Arguments***

1. Applicant's arguments filed 4/15/05 have been fully considered but they are not persuasive.

2. Applicant argues that Sferrazza teaches molding the composition to form thermal plastic products and does not teach spinning filaments. Spinning by extrusion is a type of molding and nylon fiber is a thermal plastic product. Furthermore, Studholme does teach spinning nylon into filaments (column 3, lines 47-68) and is properly combinable with Sferrazza as discussed above.

3. Applicant argues that there is no teaching or suggestion in Studholme of combining virgin polyamide with recycled polyamide or that the combination could obtain colorability characteristics comparable to that of virgin polyamide. However Sferrazza does teach combining virgin polyamide with recycled polyamide (column 9, lines 45-49) and is properly combinable with Studholme as discussed above. Furthermore, because Studholme in view of Sferrazza teaches all the claim limitations of the claimed invention, the colorability characteristics of the product made must inherently be comparable to that of virgin polyamide.

4. Applicant argues that there is no suggestion to combine Studholme and Sferrazza and that there is no teaching that the combination could obtain colorability characteristics comparable to that of virgin polyamide. However, the motivation to use a recycled and virgin polymer mixture be to reduce post consumer carpeting waste (Studholme, column 1, lines 25-30). Furthermore, because Studholme in view of Sferrazza teaches all the claim limitations of the claimed invention, the colorability characteristics of the product made must inherently be comparable to that of virgin polyamide.

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David T. Beck whose telephone number is 571-272-2942. The examiner can normally be reached on Monday - Friday, 8AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 517-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DTB  
June 23, 2005

*DTB*

A handwritten signature in black ink, appearing to read "Michael P. Colaianni", with a long horizontal flourish extending to the right.

**MICHAEL P. COLAIANNI**  
**SUPERVISORY PATENT EXAMINER**